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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,970	09/26/2005	Jean Monne	102114.00018	4137

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HOLLAND & KNIGHT LLP  
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BOSTON, MA 02116

EXAMINER
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SAINT CYR, LEONARD

ART UNIT	PAPER NUMBER
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2626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/550,970

Applicant(s)

MONNE ET AL.

Examiner

Leonard Saint-Cyr

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                 | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 15 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Regarding claim 16, "if" renders the claim indefinite because it makes the claim to be an open loop claim.

For the purpose of prosecution of the application, examiner interprets the claim limitations as follow - wherein the control means activates the second parameter calculation means if an audio signal is received at the receiver; and considering the audio signal as input signal, and modeling parameters as input parameters -.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 9, and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Thelen et al., (US Patent 6,487,534).

As per claim 9, Thelen et al., teach a user terminal in a distributed speech recognition system comprising one server suitable for communication with said user terminal, said user terminal comprising:

means for obtaining an audio signal to be recognized (fig. 7, elements 740, and 750; col.1, line 7);

first audio signal modeling parameter calculation means ("characterized by an HMM, whose parameters are estimated"; col.5, lines 23 – 25);

first control means for selecting at least one signal (a part of the speech input) to be transmitted to the server, from the audio signal to be recognized and a signal indicating the calculated modeling parameters (fig.3, element 335; col.8, lines 6 – 10).

As per claim 11, Thelen et al., further disclose that recognition means (recognition unit) to associate at least one stored form with the modeling parameters (estimated parameters; col.5, lines 23 – 25).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 8, 12 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thelen et al., (US Patent 6,487,534) over Yang et al., (US PAP 2004/0044522)

As per claim 1, Thelen et al., teach a distributed speech recognition system comprising at least one user terminal and at least one server suitable for communication with one another via a telecommunications network, wherein the user terminal comprises:

means for obtaining an audio signal to be recognized (fig. 7, elements 740, and 750; col.1, line 7);

first audio signal modeling parameter calculation means ("characterized by an HMM, whose parameters are estimated"; col.5, lines 23 – 25);

first control means for selecting at least one signal (a part of the speech input) to be transmitted to the server, from the audio signal to be recognized and a signal indicating the calculated modeling parameters (fig.3, element 335; col.8, lines 6 – 10); and

wherein the server comprises:

means for receiving the selected signal ("speech equivalent signal is received in the server station) originating from the user terminal (fig.7, elements 770, and 780; col.9, lines 53 – 54);

recognition means (recognition unit) for associating at least one stored form with input parameters (estimated parameters; col.5, lines 23 – 25).

Thelen et al., do not specifically teach a second input signal modeling parameter calculation means; second control means for controlling the second calculation means and the speech recognition means; wherein the control means activates the second parameter calculation means if an audio signal is received at the receiver; and considering the audio signal as input signal, and modeling parameters as input parameters.

However, in the same field of endeavor, Yang et al., teach that “the C-DSR server comprises a second control means (configuration controller) for controlling the second calculation means and the speech recognition means (generating a recognition adjustment parameter). The C-DSR server receives message packets from the client mobile device, and generating adjusted speech recognition parameters according to the configuration data, and then returns a result to the client mobile device after completing the recognition task” (generating adjusted speech recognition parameters based on the message packet received and returning recognition result to the client mobile, suggest activating the second parameter calculation means; considering the audio signal as input signal, and modeling parameters as input parameters, since the server returns a result to the mobile client when the recognition task is completed, based on input signal received from the client; paragraph 18, lines 8 – 12; paragraph 19, lines 1 - 8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate adjusted model parameters based on message packets received from the client as taught by Yang et al., in Thelen et al., because that

would improve the speech recognition system by automatically classifies recognition results and their associated configuration data (paragraph 15).

As per claim 2, Thelen et al., further disclose a voice activation means (spoken activation command) recognized in the form of extracts of an audio signal, outside speech segment of voice inactivity periods (col.2, lines 15 – 20).

As per claim 3, Thelen et al., further disclose that the first control means are adapted to select the signal to be transmitted to the server ("selecting a part of the speech input) from at least the original audio signal, the audio signal to be recognized in the form of segments extracted by the voice activation means and the signal indicating modeling parameters calculated by the first parameters calculation means ("estimated parameters; col.5, lines 23 – 25; fig.3, element 335; col.8, lines 6 – 10; col.1, lines 57 – 64).

As per claim 4, Thelen et al., further disclose a voice activation means (spoken activation command) recognized in the form of extracts of an audio signal, outside speech segment of voice inactivity periods (col.2, lines 15 – 20).

However, in the same field of endeavor, Yang et al., teach that "the C-DSR server comprises a second control means (configuration controller) for controlling the second calculation means and the speech recognition means (generating a recognition adjustment parameter). The C-DSR server receives message packets from the client

mobile device, and generating adjusted speech recognition parameters according to the configuration data, and then returns a result to the client mobile device after completing the recognition task” (generating adjusted speech recognition parameters based on the message packet received and returning recognition result to the client mobile, suggest activating the second parameter calculation means; considering the audio signal as input signal, and modeling parameters as input parameters, since the server returns a result to the mobile client when the recognition task is completed, based on input signal received from the client; paragraph 18, lines 8 – 12; paragraph 19, lines 1 - 8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate adjusted model parameters based on message packets received from the client as taught by Yang et al., in Thelen et al., because that would improve the speech recognition system by automatically classifies recognition results and their associated configuration data (paragraph 15).

As per claim 5, Thelen et al., further disclose recognition means (recognition unit) for associating at least one stored form with the modeling parameters calculated by the first calculation means (“estimated parameters”; col.5, lines 23 – 25).

As per claim 6, Thelen further disclose that the first control means is adapted to select the signal to be transmitted to the server according to the result supplied by the terminal recognition means (“selecting part of the speech signal via network to the server station in dependence on the outcome of the recognition”; col.1, lines 57 – 64).



As per claim 7, Thelen et al., further disclose storage means ("harddisk or ROM") adapted to store the audio signal to be recognized (col.9, lines 63 – 64; col.10, lines 8 – 13).

As per claim 8, Thelen further disclose that the control means is adapted to select a signal to be transmitted to the server independently of the result supplied by the recognition means of the terminal ("the signal need not be directed to the local recognizer" implies transmitting to the server independently of the result supplied by the recognition means of the terminal; col.8, lines 24, and 25).

As per claims 10, and 12, Thelen et al., teach the system of claims 9, and 10. However Thelen et al., do not specifically teach that at least part of the parameter calculation means is downloaded from the server.

In the same field of endeavor, Yang et al., teach "the C-DSR server receives message packets from the client mobile device, and generating adjusted speech recognition parameters according to the configuration data, and then returns a result to the client mobile device after completing the recognition task" (generating adjusted speech recognition parameters based on the message packet received, suggests that the parameter calculation means is downloaded from the server, since adjusted speech parameters is generated on the server side; paragraph 18, lines 8 – 12).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate adjusted model parameters based on message packets received from the client as taught by Yang et al., in Thelen et al., because that would improve the speech recognition system by automatically classifies recognition results and their associated configuration data (paragraph 15).

As per claim 13, Thelen et al., teach a server in a distributed speech recognition system comprising one server suitable for communication with said user terminal, said user terminal comprising:

means for receiving from a user terminal, a signal selected at said terminal (fig. 7, elements 740, and 750; col.1, line 7);

input signal modeling parameter calculation means ("characterized by an HMM, whose parameters are estimated"; col.5, lines 23 – 25);

recognition means (recognition unit) for associating at least one stored from with input parameters (estimated parameters; col.5, lines 23 – 25).

Thelen et al., do not specifically teach a second input signal modeling parameter calculation means; second control means for controlling the second calculation means and the speech recognition means; wherein the control means activates the second parameter calculation means if an audio signal is received at the receiver; and considering the audio signal as input signal, and modeling parameters as input parameters.

However, in the same field of endeavor, Yang et al., teach that “the C-DSR server comprises a second control means (configuration controller) for controlling the second calculation means and the speech recognition means (generating a recognition adjustment parameter). The C-DSR server receives message packets from the client mobile device, and generating adjusted speech recognition parameters according to the configuration data, and then returns a result to the client mobile device after completing the recognition task” (generating adjusted speech recognition parameters based on the message packet received and returning recognition result to the client mobile, suggest activating the second parameter calculation means; considering the audio signal as input signal, and modeling parameters as input parameters, since the server returns a result to the mobile client when the recognition task is completed, based on input signal received from the client; paragraph 18, lines 8 – 12; paragraph 19, lines 1 - 8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate adjusted model parameters based on message packets received from the client as taught by Yang et al., in Thelen et al., because that would improve the speech recognition system by automatically classifies recognition results and their associated configuration data (paragraph 15).

As per claims 14, and 15, Thelen et al., further disclose means for downloading voice recognition software resources via the telecommunications network to a terminal at least part of recognition means of the terminal (client station comprises communication means for communicating via the internet is formed by a combination of

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hardware and software implies means for downloading voice recognition software resources via the telecommunications network to a terminal; col.7, lines 38 – 46).

As per claim 16, Thelen et al., further disclose recognition means (recognition unit) for associating at least one stored form with modeling parameters (estimated parameters; col.5, lines 23 – 25).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bennett et al., (US Patent, 6,633,846) teach a distributed real time speech recognition system.

Corley et al., (US Patent 5,838,683) teach a distributed interactive multimedia system architecture.

Huang et al., (US PAP 2003/0182113) teach a distributed speech recognition for mobile communication devices.

Tel (US Patent, 5,943,648) teaches a speech signal distribution system providing supplemental parameter associated data.

Arnold et al., (US Patent 7,016,849) teach a method and apparatus for providing speech-driven routing between spoken language applications.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard Saint-Cyr whose telephone number is (571) 272-4247. The examiner can normally be reached on Mon- Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LS  
12/12/06



**RICHEMOND DORVIL**  
**SUPERVISORY PATENT EXAMINER**